UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,920	07/31/2001	Satoshi Kondo	60188-520	5216

7590 08/11/2004	EXAMINER
McDermott Will & Emery	FLETCHER, JAMES A
600 13th Street N W	

ART UNIT	PAPER NUMBER
2616	8

Washington, DC 20005-3096

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _31 July 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-10_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-10_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Please include the new Art Unit 2616 in the caption or heading of any written or facsimile communication submitted after this Office Action because the examiner, who was assigned to Art Unit 2615, will be assigned to new Art Unit 2616. Your cooperation in this matter will assist in the timely processing of the submission and is appreciated by the Office.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-4 and 4/6 are rejected under 35 U.S.C. 102(b) as being anticipated by Magee et al (5,835,493).

Regarding claim 1, Magee et al disclose a stream converting method comprising:

- separating a first transport stream (TS) into a first TS packet string formed from TS packets that have a prescribed packet identifier (Col 9, lines 22-26 "Depending on the PID of each transport packet, the DLM 110 extracts and transfers the transport packet onto the DM bus for assembly into the outputted remultiplexed transport stream by the scheduler 141") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 9, lines 26-28 "Furthermore, depending on the PID of

each transport packet, the DLM 110 extracts and captures the transport

packet for transfer on the C bus");

- converting a bit rate of the first TS packet string so as to produce a third TS

  packet string (Col 3, lines 39-41 "The video preprocessor module 17 performs

  different kinds of analysis and modification of the inputted digital video such

  as sample rate conversion"); and

- multiplexing the produced third TS packet string and the second TS packet

  string so as to produce a second transport stream (Col 8, lines 1-4 "a flexible

  remultiplexer architecture is provided for remultiplexing one or more higher

  layered transport streams to selectively include one or more programs, or

  elementary streams of programs, carried therein").

Regarding claim 2, Magee et al disclose a stream converting method

characterized in that the prescribed packet identifier is a packet identifier of at last one

of video data and audio data (Col 2, lines 20-21 "Each transport packet can carry PES

packet data, e.g., private data, video data, or audio data").

Regarding claim 3, Magee et al disclose a stream converting method

comprising:

- extracting reference time information from the first transport stream so as to

  produce reference time from the reference time information (Col 12, lines 33-

  35 "each transport stream carries PCR's for recovering a program clock of

  each program carried therein");

- determining, with reference to the reference time, time of receipt of a TS packet including a head byte of a PES packet in the first TS packet string as first time of receipt (Col 12, lines 42-43 "the DLM 110 keeps track of the time each transport packet carrying a PCF is received");

- determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the second TS packet string as second time of receipt (Col 12, lines 44-45 "The DLM 110 also keeps track of when the PCR bearing transport packet is transferred on the DM bus"); and

- selecting from the second TS packet string a TS packet corresponding to the second time of receipt for output as the second transport stream, when the delayed reference time matches the second time of receipt (Col 12, lines 44-49 "Prior to transfer, the DLM 110 determines the 'dwell' time or time in which the PCR bearing transport packet has been enqueued in the DLM 110. This dwell time is added to the PCR of the transport packet prior to transfer on the DM bus").

Regarding claim 4, Magee et al disclose a stream recording method comprising:

- separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier (Col 9, lines 22-26 "Depending on the PID of each transport packet, the DLM 110 extracts and transfers the transport packet onto the DM bus for assembly into the outputted remultiplexed transport stream by the scheduler 141") and a second TS packet string formed from TS packets that do not have the prescribed

packet identifier (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");

- converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 3, lines 39-41 "The video preprocessor module 17 performs different kinds of analysis and modification of the inputted digital video such as sample rate conversion");

- multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream (Col 8, lines 1-4 "a flexible remultiplexer architecture is provided for remultiplexing one or more higher layered transport streams to selectively include one or more programs, or elementary streams of programs, carried therein");

- extracting reference time information from the first transport stream (Col 12, lines 33-35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"), and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time (Col 12, lines 44-48 "Prior to transfer, the DLM 110 determines the 'dwell' time or time in which the PCR bearing transport packet has been enqueued in the DLM 110") and

- determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt into a

recording medium (Col 12, lines 48-49 "This dwell time is added to the PCR

of the transport packet prior to transfer on the DM bus").

Regarding claim 4/6, Magee et al disclose a stream recording method

characterized in that the prescribed packet identifier is a packet identifier of at least one

of video data and audio data (Col 2, lines 20-21 "Each transport packet can carry PES

packet data, e.g., private data, video data, or audio data").

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 5-10 and 5/6 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Magee et al.

Regarding claim 5, Magee et al disclose a stream recording method comprising:

- selecting TS packets other than TS packets having a prescribed packet

  identifier from a first transport stream so as to output the selected TS packets

  as a second transport stream (Col 9, lines 26-28 "Furthermore, depending on

  the PID of each transport packet, the DLM 110 extracts and captures the

  transport packet for transfer on the C bus");

- extracting reference time information from the first transport stream so as to

  produce reference time from the reference time information (Col 12, lines 33-

35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"); and

- determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream (Col 12, lines 42-43 "the DLM 110 keeps track of the time each transport packet carrying a PCF is received"),

- Magee et al suggest recording the output (Col 5, lines 29-30 "The output formatter converts the transport packet data into a format suitable for transfer to a downstream device"), but do not specifically disclose that device as a recording medium.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream.

Regarding claim 6, Magee et al disclose a stream recording method characterized in that the prescribed packet identifier is a packet identifier of at least one of video data and audio data (Col 2, lines 20-21 "Each transport packet can carry PES packet data, e.g., private data, video data, or audio data").

Regarding claim 7, Magee et al do not disclose a stream recording method characterized in that the recording medium is an optical disk.

The examiner takes official notice that optical disks are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream on an optical disk.

Regarding claims 8 and 9, Magee et al disclose a stream converting apparatus comprising:

- a packet separating section for separating a first transport steam into a first TS packet string formed from TS packets that have a prescribed packet identifier (Col 9, lines 22-26 "Depending on the PID of each transport packet, the DLM 110 extracts and transfers the transport packet onto the DM bus for assembly into the outputted remultiplexed transport stream by the scheduler 141") and a second TS packet string formed from TS packets that do not have the prescribed packet identifier (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");

- a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string (Col 3, lines 39-41 "The video

preprocessor module 17 performs different kinds of analysis and modification
of the inputted digital video such as sample rate conversion");

- a packet multiplexing section for multiplexing the third TS packet string output
  from the bit-rate converting section and the second TS packet string output
  from the packet separating section so as to produce a second transport
  stream (Col 8, lines 1-4 "a flexible remultiplexer architecture is provided for
  remultiplexing one or more higher layered transport streams to selectively
  include one or more programs, or elementary streams of programs, carried
  therein");

- a means for extracting reference time information from the first transport
  stream (Col 12, lines 33-35 "each transport stream carries PCR's for
  recovering a program clock of each program carried therein"), and delaying
  reference time represented by the reference time information by a prescribed
  time so as to produce delayed reference time (Col 12, lines 44-48 "Prior to
  transfer, the DLM 110 determines the 'dwell' time or time in which the PCR
  bearing transport packet has been enqueued in the DLM 110"); and

- a recording control section for determining, with reference to the delayed
  reference time, time of receipt of each TS packet forming the second
  transport stream (Col 12, lines 48-49 "This dwell time is added to the PCR of
  the transport packet prior to transfer on the DM bus")

- Magee et al suggest recording the output (Col 5, lines 29-30 "The output
  formatter converts the transport packet data into a format suitable for transfer

to a downstream device"), but do not specifically disclose that device as a recording medium.

The examiner takes official notice that devices for recording packetized video and audio data are well-known, widely used, and commercially available to the general public, and provide a means for storing audio and video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Magee et al to include recording of the remultiplexed bit stream.

Regarding claim 10, Magee et al disclose a stream recording apparatus comprising:

- a packet selecting section for selecting TS packets other than TS packets having a prescribed packet identifier from a first transport stream so as to output the selected TS packets as a second transport stream (Col 9, lines 26-28 "Furthermore, depending on the PID of each transport packet, the DLM 110 extracts and captures the transport packet for transfer on the C bus");

- a means for extracting reference time information from the first transport stream so as to produce reference time from the reference time information (Col 12, lines 33-35 "each transport stream carries PCR's for recovering a program clock of each program carried therein"); and

- a recording control section for determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream

(Col 12, lines 42-43 "the DLM 110 keeps track of the time each transport

packet carrying a PCF is received")

- Magee et al suggest recording the output (Col 5, lines 29-30 "The output

  formatter converts the transport packet data into a format suitable for transfer

  to a downstream device"), but do not specifically disclose that device as a

  recording medium.

The examiner takes official notice that devices for recording packetized

video and audio data are well-known, widely used, and commercially

available to the general public, and provide a means for storing audio and

video programs for viewing at times convenient to the user.

Therefore, it would have been obvious to one of ordinary skill in the art

at the time of the invention to modify Magee et al to include recording of the

remultiplexed bit stream.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to James A. Fletcher whose telephone number is (703)

305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first

Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Faile can be reached at (703) 305-4380.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

JAF
August 6, 2004

VINCENT BOCCIO
PRIMARY EXAMINER